IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Patent Application

Appellant (s):	**Mark Dilman et al.**		
Serial No.:	**09/813,415**		
Examiner:	**Bilgrami, Asghar H.**		
Filed:	**March 21, 2001**	Group Art Unit:	**2143**
Confirmation #:	**2405**	Case:	**1-6**
Title:	**METHOD AND APPARATUS FOR EFFICIENT REACTIVE MONITORING**		

Dear Sir or Madam:

REPLY BRIEF

Appellants submit this Reply Brief to the Board of Patent Appeals and Interferences in response to the Examiner's Answer, dated March 23, 2009, in the Appeal of the above-identified application.

The Commissioner is authorized to charge any fees due, including extension of time and excess claim fees, to counsel's Deposit Account No. 50-4802/ALU/**DILMAN1**.

REMARKS

Section 1 (Real Party in Interest)

Appellants wish to clarify the Real Party in Interest as follows:

The real party in interest is ALCATEL-LUCENT. The assignee of record is LUCENT TECHNOLOGIES INC, which merged with ALCATEL to form ALCATEL-LUCENT.

Section 10 (Response to Arguments)

In Section 10 (Response to Arguments) of the Examiner's Answer, the Examiner provides answers to the arguments made by the Appellants in the Appeal Brief filed for the above-identified application. The Examiner's answers to Appellants' arguments are addressed below.

A. Response to Examiner's Arguments in Section (A) – Claims 1, 6, 9, and 10

1. Section (i) – Claims 1 and 6:

In the Examiner's Answer, the Examiner raises four issues with respect to Appellants' claims 1 and 6. Appellants' responses to the issues are provided below.

Issue 1:

In the first issue raised by the Examiner, the Examiner develops a line of reasoning in which the Examiner attempts to equate the "CPU utilization rate" of Boukobza to the "rate of change of usage of resources" feature of Appellants' claim 1. Appellants respectfully submit that Boukobza fails to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

In a first point raised by the Examiner in the first issue, the Examiner points to a specific portion of Appellants' specification (namely, Pg. 9, Lines 8 – 15) which describes "rate of change" and then asserts that "[i]n light of the broadest interpretation of the term "rate of change" used in the claim and described in the above paragraph of applicant's disclosure examiner introduced Boukobza et al." (See Examiner's Answer, Pg. 9).

In response to this first point, Appellants respectfully submit that the basis of the Examiner's rejection is the Examiner's broadest interpretation of only one portion of Appellants' specification in which the term "rate of change" is used.

Appellants' originally-filed application describes the term "rate of change" in more detail in other portions of Appellants' specification.

Namely, Appellants' specification states that "[i]n accordance with another embodiment of the present invention, a rate based technique is arranged such that a local element (node) monitors its own resource usage locally, and reports (i.e., sends a message to a central monitoring location) only when the rate at which the value of a local variable changes, e.g., is too high." (Specification, Pg. 3, Lines 11 – 17).

Similarly, Appellants' specification states that "[t]he second embodiment is rate based, and is arranged such that a local node or other element reports only when the rate at which the value of the monitored variables changes locally, is too high: This allows the central manager, i.e., network management station 160, to assume that as long as no report was received, the change rates at each node, i.e. the first derivative of the value of each of the local variables, is bounded." (Specification, Pg. 9, Lines 1 – 5).

These other portions of Appellants' specification have been ignored by the Examiner in an attempt to fit the CPU utilization rate parameter of Boukobza to the "rate of change of usage of resources" feature of Appellants' claim 1. Applicants respectfully submit that Boukobza fails to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

In the Examiner's rejections in the Final Office Action and the Examiner's Answer, the Examiner identifies a particular resource that is disclosed in Boukobza (namely, a CPU utilization rate), and concludes that Boukobza discloses a rate of change of usage of resources as claimed in Appellants' claim 1. Appellants note, however, that in order for Boukobza to teach the "rate of change of usage of resources" feature of Appellants' claim 1, Boukobza would have to disclose a rate of change of usage of a resource where the resource is the CPU utilization rate. In other words, based on the portions of Appellants' specification cited above, in order for Boukobza to teach the "rate of change of usage of resources" feature of Appellants' claim 1, Boukobza would have to teach or suggest rate at which the CPU utilization rate is changing. Boukobza is devoid of any teaching or suggestion of a rate at which the CPU utilization rate is

changing and, therefore, Boukobza does not teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

In a second point raised by the Examiner in the first issue, on the basis of the Examiner's arguments in the first point, the Examiner then concludes that "Boukobza discloses a management node that monitors a plurality of nodes in a network by distributing configured agents to the plurality of nodes with stay resident in these nodes and monitor the node's parameter (Rate of Change) against a predefined conditions or thresholds." (See Examiner's Answer, Pg. 9).

In response to this second point, Appellants respectfully note that the Examiner appears to be confusing the parameter being monitored with the manner in which the parameter is being monitored. In the Examiner's statement quoted above, the Examiner appears to indicate that "rate of change" is the parameter that is being monitored; however, the parameter in Boukobza is a CPU utilization rate. Appellants note that this parameter of Boukobza upon which the Examiner relies does not indicate any rate of change. Appellants further note that Boukobza is devoid of any teaching or suggestion of monitoring the rate of change of the CPU utilization rate of Boukobza. Thus, Boukobza fails to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

In third second point raised by the Examiner in the first issue, the Examiner cites a specific portion of Boukobza, asserting that Boukobza discloses "...monitoring the CPU utilization (A.K.A resource) rate of a node." (See Examiner's Answer, Pg. 10).

In response to this third point, Appellants note that the Examiner's parsing of "CPU utilization rate" appears to be improper. The Examiner appears to parse "CPU utilization rate" such that "CPU utilization" is separate from "rate" in an attempt to then assert that Boukobza discloses monitoring the rate of change of CPU utilization. The teachings of Boukobza, however, do not support such a parsing. Rather, Boukobza defines the CPU utilization rate in terms of a "percentage of total cpu." For example, the CPU utilization rate of the CPU in Boukobza might be 80%, which indicates that 80% of the total CPU is being utilized. Furthermore, even assuming *arguendo* that the teachings of Boukobza did support such a parsing, Boukobza still would fail to teach or suggest monitoring a rate of change of usage of CPU utilization and, thus, would fail to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

In response to this third point, Appellants further note that the portion of Boukobza cited by the Examiner merely states that an "...action can consist of displaying the 'down' status of an object...using a function supplied by the product or of performing a test for correlation with a piece of system information (cpu utilization rate, for example)...." (See Examiner's Answer, Pg. 10, quoting Boukobza Col. 6, Lines 3 – 20). In other words, the cited portion of Boukobza merely includes the words "CPU utilization rate." The cited portion of Boukobza is devoid of any teaching or suggestion of monitoring a rate of change of usage of the CPU utilization rate parameter of Boukobza and, thus, fails to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

In a fourth point raised by the Examiner in the first issue, the Examiner cites a specific portion of Boukobza, asserting that the cited portion of Boukobza "...elaborates on the monitoring of the CPU Utilization against a maximum threshold with respect to time." (See Examiner's Answer, Pg. 10).

In response to this fourth point, Appellants note that the cited portion of Boukobza merely states that the MAX-CPU parameter is the "percentage of total CPU time" and that another parameter (PERIOD) is the "minimum time interval between two measurements of a parameter." (See Examiner's Answer, Pg. 11, quoting Boukobza Col. 6, Lines 47 – 67). Boukobza is devoid of any teaching or suggestion that the MAX-CPU parameter is indicative of a rate of change of usage of any resource. Rather, as noted above, the MAX-CPU parameter is a percentage of total cpu. A percentage of total CPU, as disclosed in Boukobza, is not a rate of change as claimed in Appellants' claim 1. Boukobza also is devoid of any teaching or suggestion that the PERIOD parameter is a time that is used to calculate a rate of change. Rather, as stated in Boukobza, the PERIOD parameter is merely a time interval between two measurements of a parameter. The PERIOD parameter of Boukobza not a time associated with a rate of change of the CPU utilization. Thus, contrary to the Examiner's assertions, the cited portion of Boukobza fails to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

Furthermore, as noted hereinabove, Appellants respectfully submit that in order for Boukobza to teach the "rate of change of usage of resources" feature of Appellants' claim 1, Boukobza would have to disclose a rate of change of usage of the CPU utilization rate of Boukobza. As noted by Appellants in the Appeal Brief and hereinabove, Boukobza does not

disclose a rate of change of usage of CPU utilization rate and, therefore, does not teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

Thus, Boukobza fails to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1.

Issue 2:

In the second issue raised by the Examiner, the Examiner refers to the arguments made by the Examiner with respect to the first issue as support for a conclusion that Boukobza discloses the limitation of "a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," as claimed in Appellants' claim 1.

Appellants have addressed the first issue raised by the Examiner. As noted in response to the first issue raised by the Examiner, Boukobza fails to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1. Thus, Boukobza fails to teach or suggest the limitation of "a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," as claimed in Appellants' claim 1.

Issue 3:

In the third issue raised by the Examiner, the Examiner pointed out that the Examiner is relying upon Boukobza, not Robinson, to show the "rate of change of usage of resources" feature of Appellants' claim 1.

In response, Appellants respectfully note that Appellants' statements in the Appeal Brief addressing Robinson were made for the purpose of addressing the rejection of Appellants' claim 1 based on a combination of Boukobza and Robinson. More specifically, Appellants discussed Robinson for purposes of showing that, since neither Boukobza nor Robinson discloses the "rate of change of usage of resources" feature of Appellants' claim 1, a combination of Boukobza and Robinson does not disclose the "rate of change of usage of resources" feature of Appellants' claim 1.

Thus, Appellants submit that Appellants' statements regarding the teachings of Robinson were proper.

Issue 4:

In the fourth issue raised by the Examiner, the Examiner asserts that Appellants' dependent claim 6 is not patentable. Appellants respectfully disagree at least for the reasons provided in the Conclusion section which follows.

Conclusion

Thus, Boukobza fails to teach or suggest the "rate of change of usage of resources" feature of Appellants' claim 1. Similarly, as described in Appellants' Appeal Brief, Robinson also fails to teach or suggest at least the "rate of change of usage of resources" feature of Appellants' claim 1.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Appellants' claim 1.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest Appellants' claim 1. Therefore, independent claim 1 is patentable over Boukobza and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claim 6 depends from independent claim 1 and recites additional limitations therefor. Therefore, dependent claim 6 also is patentable over Boukobza and Robinson and, thus, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Therefore, Appellants respectfully request that the rejection be withdrawn.

2. Section (ii) – Claim 9:

In the Examiner's Answer, the Examiner raises three issues with respect to Appellants' claim 9. Appellants' responses to the issues are provided below.

Issue 1:

In the first issue raised by the Examiner, the Examiner asserts that Boukobza discloses the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9. Appellants respectfully disagree.

In the first issue raised by the Examiner, the Examiner attempts to provide support for the Examiner's assertion that Boukobza discloses the limitation of Appellants' claim 9 cited hereinabove.

The Examiner first asserts that "…Boukobza clearly discloses that an offline analysis can also be done on the previously recorded activities of the nodes and can be shown as Statistical reports. It is well known that Statistical reports are formulated by summing all the data in a specific category over a period of time, which is the resource usage in our instant prior art on col. 26, lines 51 – 67." (See Examiner's Answer, Pg. 13). The Examiner then asserts that "Boukobza has already disclosed determining resource usage by utilizing agents in plurality of nodes which stay resident in these nodes and monitor the node's parameters against pre-defined conditions or thresholds report it back to the management station." (See Examiner's Answer, Pg. 13). The Examiner then concludes that Boukobza "clearly discloses" Appellants' limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9. Appellants respectfully disagree.

With respect to the Examiner's first assertion, Appellants respectfully note that a general statement that statistical reports are formulated by summing all the data in a specific category over a period of time does not teach or suggest the specific limitation of "a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9.

With respect to the Examiner's second assertion, Appellants respectfully note that a general teaching that parameters are compared to thresholds does not teach or suggest the

specific limitation of "a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9.

Furthermore, Appellants respectfully submit that, even assuming *arguendo* that the Examiner's assertions could be held to be correct, the Examiner's assertions do not provide an adequate basis for the Examiner's conclusion.

First, even assuming *arguendo* that the Examiner's first assertion, regarding statistical reports, could be held to be correct, Boukobza, alone or in combination with what the Examiner asserts is common knowledge, would merely disclose a general limitation of summing all data in a category, not the specific limitation of "a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold" that is claimed in Appellants' claim 9. Boukobza is devoid of any teaching or suggestion of a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes. Boukobza also is devoid of any teaching or suggestion of any distinction between information associated with reporting nodes and non-reporting nodes. Furthermore, a general idea of summing all data in a category does not teach or suggest a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes. Thus, Boukobza, alone or in combination with the Examiner's general comments regarding summing all data in a category, clearly fails to teach or suggest a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes.

Second, even assuming *arguendo* that the Examiner's second assertion, regarding comparison of a parameter to a threshold, could be held to be correct, Boukobza would merely disclose a general limitation of comparing a parameter to a threshold, not the specific limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9. Boukobza is devoid of any teaching or suggestion of comparing a sum of previously reported values

indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes to a threshold.

Rather, at most, the Examiner's assertions merely support a conclusion that Boukobza discloses summing resource data and comparing the summation to a threshold. The Examiner's assertions do not support a conclusion that Boukobza, alone or in combination with what the Examiner asserts is common knowledge, discloses the specific limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9.

Thus, at least for these reasons, Boukobza fails to teach or suggest the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9.

Furthermore, Appellants note that the Examiner has failed to produce a prima facie case of obviousness because the Examiner has failed to address the entire limitation of Appellants' claim 9. Namely, the Examiner has failed to cite any portion of Boukobza, or any other teaching, that discloses "an upper bound of node resource usage for non-reporting nodes," much less a condition in which "a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9. The Examiner's failure to address this portion of this limitation of Appellants' claim 9 means that the Examiner has failed to produce a *prima facie* case of obviousness of Appellants' claim 9. The Examiner's failure to produce a *prima facie* case of obviousness of Appellants' claim 9 is addressed in more detail in Appellants' Appeal Brief, and hereinbelow with respect to the second issue raised by the Examiner with respect to Appellants' claim 9.

Issue 2:

In the second issue raised by the Examiner, the Examiner points out that Appellants addressed arguments made by the Examiner during past prosecution of this application in which

other prior art (namely, Mandal) was cited. The Examiner then asserts that this argument is not applicable to Appellants' Appeal Brief. Appellants respectfully disagree.

In response, Appellants respectfully maintain that the Examiner has failed to produce a prima facie case of obviousness of Appellants' claim 9 at least because the Examiner failed to provide any arguments or evidence addressing Appellants' claim 9 limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold."

Appellants submit that Appellants' references in the Appeal Brief to the previous Office Action, dated May 2, 2007, were necessitated by the Examiner's failure to provide a proper rejection of Appellants' claim 9 in the Final Office Action. In the Appeal Brief, after showing that the Examiner failed to produce a prima facie case of obviousness of Appellants' claim 9, Appellants then (1) addressed related arguments made by the Examiner in the previous Office Action (to show that, even when the Examiner did previously address similar limitations using the Mandal reference, the Examiner's rejection was insufficient) and (2) showed that the limitations of Appellants' claim 9 were not taught or suggested by the references cited in the Final Office Action from which the Appeal was filed. Appellants submit that these additional arguments were provided for purposes of completeness. Thus, even assuming *arguendo* that Appellants' arguments related to Mandal are to be ignored, the fact remains that the Examiner has failed to address all of the limitations of Appellants' claim 9 and, thus, has failed to produce a prima facie case of obviousness of Appellants' claim 9 in either the Final Office Action or the Examiner's Answer.

In the Final Office Action, the Examiner failed to address the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," which is claimed in Appellants' claim 9. Rather, the Examiner merely referred to the limitations of Appellants' claim 1 in applying a rejection of Appellants' claims 1 and 9, without regard for the differences between Appellants' claims 1 and 9. Accordingly, Appellants respectfully submit that the Examiner failed to produce a prima facie

case of obviousness of Appellants' claim 9 in the Final Office Action. Furthermore, the Examiner has failed to address this portion of Appellants' Appeal Brief (i.e., the portion explain the Examiner's failure to address all of the limitations of Appellants' claim 9) in the Examiner's Answer. Therefore, the rejection should be withdrawn.

In the Examiner's Answer, the Examiner attempts to address the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," which is claimed in Appellants' claim 9. Appellants note, however, that the Examiner's attempt to address this limitation still fails to address the entire limitation. Namely, in the Examiner's Answer the Examiner still fails to address at least the portion of the limitation which recited "an upper bound of node resource usage for non-reporting nodes." Accordingly, Appellants respectfully submit that the Examiner failed to produce a prima facie case of obviousness of Appellants' claim 9 in the Examiner's Answer.

Accordingly, Appellants respectfully submit that the Examiner failed to produce a prima facie case of obviousness of Appellants' claim 9. Therefore, the rejection should be withdrawn.

Issue 3:

In the third issue raised by the Examiner, the Examiner refers to the arguments made by the Examiner with respect to the first issue. Appellants have addressed the first issue raised by the Examiner.

Conclusion

Thus, Boukobza fails to teach or suggest the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9.

Similarly, as described in Appellants' Appeal Brief, Robinson also fails to teach or suggest the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values

indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Appellants' claim 9.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest Appellants' claim 9. Therefore, independent claim 9 is patentable over Boukobza and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Therefore, Appellants respectfully request that the rejection be withdrawn.

Section (iii) – Claim 10:

In the Examiner's Answer, the Examiner raises two issues with respect to Appellants' claim 10. Appellants' responses to the issues are provided below.

Issue 1:

In a first issue raised by the Examiner, the Examiner points to a specific portion of Boukoubza, asserting that the cited portion of Boukoubza discloses Appellants' limitation of "a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station." (See Examiner's Answer, Pg. 17).

In response, Appellants respectfully note that, even assuming *arguendo* that Boukobza may be interpreted as disclosing such a variable time interval, Boukobza still would fail to teach or suggest the relevant limitation of Appellants' claim 10.

Appellants' claim 10 recites a limitation of " wherein said rate of change of usage of said node resource *is determined using* a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station."

As described in Appellants' Appeal Brief and herein, Boukobza fails to teach or suggest the "rate of change of usage of node resource" feature of Appellants' claim 10.

Furthermore, the portion of Boukobza cited by the Examiner merely discloses a PERIOD parameter that is a time interval between two measurements of a parameter. Boukobza is devoid

of any teaching or suggestion that the PERIOD parameter is used to determine a rate of change of usage of a parameter.

Thus, even assuming *arguendo* that Boukobza may be interpreted as disclosing such a variable time interval, as asserted by the Examiner, Bouokbza fails to teach or suggest the limitation of "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource *is determined using* a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Appellants' claim 10.

Issue 2:

In a second issue raised by the Examiner, the Examiner asserts that Boukobza discloses the "rate of change of usage of node resource" feature of Appellants' claim 10. Appellants respectfully disagree.

In asserting that that Boukobza discloses the "rate of change of usage of node resource" feature of Appellants' claim 10, the Examiner refers to and relies upon the arguments provided by the Examiner with respect to the "rate of change of usage of node resource" feature of Appellants' claim 1. As described hereinabove with respect to claim 1, Boukobza fails to disclose the "rate of change of usage of node resource" feature of Appellants' claim 1. Accordingly, at least for the reasons provided hereinabove with respect to claim 1, Appellants respectfully submit that Boukobza fails to teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 10.

More specifically, Appellants respectfully note that, in the Examiner's arguments, the Examiner identifies a resource that is disclosed in Boukobza (namely, a CPU utilization rate), and concludes that Boukobza discloses a rate of change of usage of resource as claimed in Appellants' claim 10. Appellants note, however, that in order for Boukobza to teach the "rate of change of usage of resource" feature of Appellants' claim 10, Boukobza would have to disclose a rate of change of usage of the resource where the resource is the CPU utilization rate. In other words, in order for Boukobza to teach the "rate of change of usage of resource" feature of Appellants' claim 10, Boukobza would have to disclose a rate of change of usage of the CPU utilization rate. As noted by Appellants in the Appeal Brief and hereinabove, Boukobza does not

disclose a rate of change of usage of CPU utilization rate and, therefore, does not teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 10.

Conclusion

Thus, Boukobza fails to teach or suggest the limitation of "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Appellants' claim 10.

Similarly, as described in Appellants' Appeal Brief, Robinson also fails to teach or suggest the limitation of "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Appellants' claim 10.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Appellants' claim 10.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest Appellants' claim 10. Therefore, independent claim 10 is patentable over Boukobza and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Therefore, Appellants respectfully request that the rejection be withdrawn.

B. Response to Examiner's Arguments in Section (B) – Claims 7, 8, 11, 12, and 14

1. Section (i) – Claims 7 and 14:

Issue 1:

In the first issue raised by the Examiner in the Examiner's Answer, the Examiner develops a line of reasoning in which the Examiner attempts to show that the Maruyama reference discloses the "rate of change of usage of resource" feature of Appellants' claim 7. Appellants respectfully disagree.

In a first point raised by the Examiner in the first issue, the Examiner points to a specific portion of Appellants' specification (namely, Pg. 9, Lines 8 – 15) which describes "rate of change" and then asserts that "[i]n light of the broadest interpretation of the term "rate of change" used in the claim and described in the above paragraph of applicant's disclosure examiner introduced Maruyama et al." (See Examiner's Answer, Pg. 19).

In response to this first point, Appellants respectfully submit that the basis of the Examiner's rejection is the Examiner's broadest interpretation of only one portion of Appellants' specification in which the term "rate of change" is used.

Appellants' originally-filed application describes the term "rate of change" in more detail in other portions of Appellants' specification.

Namely, Appellants' specification states that "[i]n accordance with another embodiment of the present invention, a rate based technique is arranged such that a local element (node) monitors its own resource usage locally, and reports (i.e., sends a message to a central monitoring location) only when the rate at which the value of a local variable changes, e.g., is too high." (Specification, Pg. 3, Lines 11 – 17).

Similarly, Appellants' specification states that "[t]he second embodiment is rate based, and is arranged such that a local node or other element reports only when the rate at which the value of the monitored variables changes locally, is too high: This allows the central manager, i.e., network management station 160, to assume that as long as no report was received, the change rates at each node, i.e. the first derivative of the value of each of the local variables, is bounded." (Specification, Pg. 9, Lines 1 – 5).

These other portions of Appellants' specification have been ignored by the Examiner in an attempt to fit the traffic admission rate parameter of Maruyama to the "rate of change of usage of resource" feature of Appellants' claim 7. Applicants respectfully submit that Maruyama fails to teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 7.

In the Examiner's rejections in the Final Office Action and the Examiner's Answer, the Examiner identifies a particular resource that is disclosed in Maruyama (namely, a traffic admission rate), and concludes that Maruyama discloses a rate of change of usage of resources as claimed in Appellants' claim 7. Appellants note, however, that in order for Maruyama to teach the "rate of change of usage of resource" feature of Appellants' claim 7, Maruyama would have to disclose a rate of change of usage of a resource where the resource is the traffic admission rate. In other words, based on the portions of Appellants' specification cited above, in order for Maruyama to teach the "rate of change of usage of resource" feature of Appellants' claim 7, Maruyama would have to teach or suggest the rate at which the traffic admission rate is changing. Maruyama is devoid of any teaching or suggestion of a rate at which the traffic admission rate is changing and, therefore, Maruyama does not teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 7.

In a second point raised by the Examiner in the first issue, the Examiner asserts that "Maruyama discloses implementing a Service Level Agreement (SLA) on a plurality of nodes in network to regulate their bandwidth usage by monitoring the traffic transfer rate in a node within a certain time cycle and comparing it a predefined limit or threshold." (See Examiner's Answer, Pg. 19). The Examiner then states that "[i]n implementing the SLA with respect to bandwidth on a network node Maruyama discloses monitoring the traffic transfer rates (I.E. Rate of change of resource usage) with respect to a time cycle in a network node against the threshold defined in the SLA." (See Examiner's Answer, Pg. 20, Emphasis added). Appellants respectfully disagree.

In response to this second point, Appellants respectfully submit that, as noted above, in order for Maruyama to teach the "rate of change of usage of resource" feature of Appellants' claim 7, Maruyama would have to disclose a rate of change of usage of the traffic admission rate of Maruyama. As noted by Appellants in the Appeal Brief and hereinabove, Maruyama does not disclose a rate of change of usage of traffic admission rate and, therefore, does not teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 7.

Thus, Maruyama fails to teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 7.

Issue 2:

In the second issue raised by the Examiner in the Examiner's Answer, the Examiner pointed out that the Examiner is relying upon Maruyama, not Robinson, to show the "rate of change of usage of resource" feature of Appellants' claim 7.

In response, Appellants respectfully note that Appellants' statements in the Appeal Brief addressing Robinson were made for the purpose of addressing the rejection of Appellants' claim 7 based on a combination of Maruyama and Robinson. More specifically, Appellants discussed Robinson for purposes of showing that, since neither Maruyama nor Robinson discloses the "rate of change of usage of resource" feature of Appellants' claim 7, a combination of Maruyama and Robinson does not disclose the "rate of change of usage of resource" feature of Appellants' claim 7.

Thus, Appellants submit that Appellants' statements regarding the teachings of Robinson were proper.

Conclusion

Thus, Maruyama fails to teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 7. Similarly, as described in Appellants' Appeal Brief, Robinson also fails to teach or suggest at least the "rate of change of usage of resource" feature of Appellants' claim 7. Thus, Maruyama and Robinson, alone or in combination, fail to teach or suggest at least the limitations of "(a) monitoring usage of the resource in a node to determine when a rate of change of the usage exceeds a first predetermined threshold" and "(b) reporting to a management station of the network when the rate of change of the usage exceeds said first predetermined threshold," as claimed in Appellants' claim 7.

Thus, Maruyama and Robinson, alone or in combination, fail to teach or suggest Appellants' claim 7. Therefore, independent claim 7 is patentable over Maruyama and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claim 14 depends from independent claim 7 and recites additional limitations

therefor. Therefore, dependent claim 14 also is patentable over Maruyama and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Therefore, Appellants respectfully request that the rejection be withdrawn.

2. Section (ii) – Claims 8, 11, and 12:

Issue 1:

In the first issue raised by the Examiner in the Examiner's Answer, the Examiner develops a line of reasoning in which the Examiner attempts to show that the Maruyama reference discloses the "rate of change of usage of resource" feature of Appellants' claim 8. Appellants respectfully disagree.

In a first point raised by the Examiner in the first issue, the Examiner points to a specific portion of Appellants' specification (namely, Pg. 9, Lines 8 – 15) which describes "rate of change" and then asserts that "[i]n light of the broadest interpretation of the term "rate of change" used in the claim and described in the above paragraph of applicant's disclosure examiner introduced Maruyama et al." (See Examiner's Answer, Pg. 19).

In response to this first point, Appellants respectfully submit that the basis of the Examiner's rejection is the Examiner's broadest interpretation of only one portion of Appellants' specification in which the term "rate of change" is used.

Appellants' originally-filed application describes the term "rate of change" in more detail in other portions of Appellants' specification.

Namely, Appellants' specification states that "[i]n accordance with another embodiment of the present invention, a rate based technique is arranged such that a local element (node) monitors its own resource usage locally, and reports (i.e., sends a message to a central monitoring location) only when the rate at which the value of a local variable changes, e.g., is too high." (Specification, Pg. 3, Lines 11 – 17).

Similarly, Appellants' specification states that "[t]he second embodiment is rate based, and is arranged such that a local node or other element reports only when the rate at which the value of the monitored variables changes locally, is too high: This allows the central manager, i.e., network management station 160, to assume that as long as no report was received, the

change rates at each node, i.e. the first derivative of the value of each of the local variables, is bounded." (Specification, Pg. 9, Lines 1 – 5).

These other portions of Appellants' specification have been ignored by the Examiner in an attempt to fit the traffic admission rate parameter of Maruyama to the "rate of change of usage of resource" feature of Appellants' claim 8. Applicants respectfully submit that Maruyama fails to teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 8.

In the Examiner's rejections in the Final Office Action and the Examiner's Answer, the Examiner identifies a particular resource that is disclosed in Maruyama (namely, a traffic admission rate), and concludes that Maruyama discloses a rate of change of usage of resources as claimed in Appellants' claim 8. Appellants note, however, that in order for Maruyama to teach the "rate of change of usage of resource" feature of Appellants' claim 8, Maruyama would have to disclose a rate of change of usage of a resource where the resource is the traffic admission rate. In other words, based on the portions of Appellants' specification cited above, in order for Maruyama to teach the "rate of change of usage of resource" feature of Appellants' claim 8, Maruyama would have to teach or suggest the rate at which the traffic admission rate is changing. Maruyama is devoid of any teaching or suggestion of a rate at which the traffic admission rate is changing and, therefore, Maruyama does not teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 8.

In a second point raised by the Examiner in the first issue, the Examiner asserts that "Maruyama discloses implementing a Service Level Agreement (SLA) on a plurality of nodes in network to regulate their bandwidth usage by monitoring the traffic transfer rate in a node within a certain time cycle and comparing it a predefined limit or threshold." (See Examiner's Answer, Pg. 23). The Examiner then states that "[i]n implementing the SLA with respect to bandwidth on a network node Maruyama discloses monitoring the traffic transfer rates (I.E. Rate of change of resource usage) with respect to a time cycle in a network node against the threshold defined in the SLA." (See Examiner's Answer, Pg. 24, Emphasis added).

In response to this second point, Appellants respectfully submit that, as noted above, in order for Maruyama to teach the "rate of change of usage of resource" feature of Appellants' claim 8, Maruyama would have to disclose a rate of change of usage of the traffic admission rate of Maruyama. As noted by Appellants in the Appeal Brief and hereinabove, Maruyama does not

disclose a rate of change of usage of traffic admission rate and, therefore, does not teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 8.

In a third point raised by the Examiner in the first issue, the Examiner also develops a line of reasoning in which the Examiner attempts to show that the Maruyama reference discloses the "asynchronous reporting" feature of Appellants' claim 8.

In response to this third point, Appellants respectfully disagree with the Examiner's assertions regarding the "asynchronous reporting" feature of Appellants' claim 8. Appellants respectfully note, however, that the Examiner's arguments with respect to the "asynchronous reporting" feature of Appellants' claim 8 are moot at least because Maruyama clearly fails to show the "rate of change of usage of resource" feature of Appellants' claim 8 by which the asynchronous reporting would be triggered.

Thus, Maruyama fails to teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 8.

Issue 2:

In the second issue raised by the Examiner in the Examiner's Answer, the Examiner notes that Appellants argued that Maruyama fails to teach or suggest a rate of change of traffic admission rate, and then asserts that Appellants' claim 7 "...does not describe 'rate of change' specifically as 'rate of change of traffic admission rate.'" (See Examiner's Answer, Pg. 27 – 28).

In response, Appellants respectfully submit that the Examiner is misinterpreting Appellants' arguments. Appellants clearly were not arguing that Appellants' claim 8 includes a limitation of "rate of change of traffic admission rate." Rather, Appellants' statement regarding a "rate of change of traffic admission rate" was meant to explain why Maruyama fails to disclose the "rate of change of usage of resource" feature of Appellants' claim 8. In the Examiner's arguments, the Examiner identifies a resource that is disclosed in Maruyama, namely, a traffic admission rate. Thus, in order for Maruyama to teach the "rate of change of usage of resource" feature of Appellants' claim 8, Maruyama would have to disclose a rate of change of usage of the traffic admission rate. In other words, in order for Maruyama to teach the "rate of change of usage of resource" feature of Appellants' claim 8, Maruyama would have to disclose a rate of change of usage of the traffic transmission rate. As noted by Appellants, Maruyama does not

disclose a rate of change of usage of the traffic transmission rate and, therefore, does not teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 8.

Issue 3:

In the third issue raised by the Examiner, the Examiner refers to the arguments made by the Examiner with respect to the first issue. Appellants have addressed the first issue raised by the Examiner.

Issue 4:

In the fourth issue raised by the Examiner, the Examiner pointed out that the Examiner is relying upon Maruyama, not Robinson, to show the "rate of change of usage of resource" feature of Appellants' claim 8.

In response, Appellants respectfully note that Appellants' statements in the Appeal Brief addressing Robinson were made for the purpose of addressing the rejection of Appellants' claim 8 based on a combination of Maruyama and Robinson. More specifically, Appellants discussed Robinson for purposes of showing that, since neither Maruyama nor Robinson discloses the "rate of change of usage of resource" feature of Appellants' claim 8, a combination of Maruyama and Robinson does not disclose the "rate of change of usage of resource" feature of Appellants' claim 8. Thus, Appellants' statements were proper.

Issue 5:

In the fifth issue raised by the Examiner, the Examiner asserts that Appellants' dependent claims 11 and 12 are not patentable. Appellants respectfully disagree at least for the reasons provided in the Conclusion section which follows.

Conclusion

Thus, Maruyama fails to teach or suggest the "rate of change of usage of resource" feature of Appellants' claim 8. Similarly, as described in Appellants' Appeal Brief, Robinson also fails to teach or suggest at least the "rate of change of usage of resource" feature of Appellants' claim 8. Thus, Maruyama and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "asynchronous reporting of an event to a management station of

the network when a rate of change of a usage of at least one resource of said resources in any of said nodes deviates from a prescribed norm," as claimed in Appellants' claim 8.

Thus, Maruyama and Robinson, alone or in combination, fail to teach or suggest Appellants' claim 8. Therefore, independent claim 8 is patentable over Maruyama and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claims 11 and 12 depend from independent claim 8 and recites additional limitations therefor. Therefore, dependent claims 11 and 12 also are patentable over Maruyama and Robinson and, thus, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Therefore, Appellants respectfully request that the rejection be withdrawn.

CONCLUSION

Appellants respectfully request that the Board reverse the rejections and pass the claims to allowance.

Respectfully submitted,

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